## **SPCC Survey Results:**

## **Industry Comparison Tables**

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**Table B:** Tank Spill Prevention Characteristics

**Table C:** Piping Characteristics

Table D: Annual Spill CharacteristicsTable E: Spill Response Characteristics

**Table F:** Facility Oil Storage and Transport Characteristics

**Table G:** Other Facility Characteristics

## TABLE A TANK CHARACTERISTICS

SIC CODE	INDUSTRY	TOTAL NUMBER OF TANKS	AVERAGE NUMBER OF TANKS PER FACILITY	AVERAGE CAPACITY (GALLONS)	AVERAGE AGE OF TANKS (YEARS)	MOST COMMON TANK TYPE	MOST COMMON TANK MATERIAL	MOST COMMON PRODUCT STORED	MOST COMMON TRANSFER MECHANISM
01/02	Farms	3,091	3.5	45,368	14	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Diesel	Loading Pump
12/14	Coal Mining/Nonmetallic Mineral Mining	78	4.9	2,316	10	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Diesel	Loading Pump
131	Oil Production	1,814	8.5	11,702	17	Prefabricated Aboveground, on Ground/Pad	Steel/Carbon Steel	Crude Oil	Gravity
16	Contract Construction	190	5.9	10,640	17	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Diesel	Loading Pump
20	Food and Kindred Products	864	12.7	42,872	14	Prefabricated Aboveground, on Ground/Pad	Steel/Carbon Steel	Other	Loading Pump
28	Chemical and Allied Products	408	8.5	130,075	17	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Other	Loading Pump
29	Petroleum Refining and Related Industries	1,885	65	1,416,779	39	Field-Erected Aboveground, Riveted	Steel/Carbon Steel	Other	Loading Pump
33	Primary Metal Industries	222	18.5	10,092	19	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Lubricating Oil	Loading Pump
20-39	Other Manufacturing	687	6.6	17,006	13	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Lubricating Oil	Loading Pump

TABLE A
TANK CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	TOTAL NUMBER OF TANKS	AVERAGE NUMBER OF TANKS PER FACILITY	AVERAGE CAPACITY (GALLONS)	AVERAGE AGE OF TANKS (YEARS)	MOST COMMON TANK TYPE	MOST COMMON TANK MATERIAL	MOST COMMON PRODUCT STORED	MOST COMMON TRANSFER MECHANISM
401	Railroad Fueling	100	6.3	46,623	21	Prefabricated Aboveground, on Ground/Pad	Steel/Carbon Steel	Diesel	Loading Pump
411/413/ 414/417	Bus Transportation	2	2	400	2	Prefabricated Aboveground, on Ground/Pad, Aboveground Vaulted	Steel/Carbon Steel	Lubricating Oil, Waste Oils <sup>a</sup>	Loading Pump, Submersible Pump <sup>b</sup>
42/449	Trucking and Warehouse/Water Transportation Services	506	5.1	147,132	12	Prefabricated Aboveground, on Ground/Pad	Steel/Carbon Steel	Lubricating Oil	Loading Pump
458	Air Transportation	253	6.8	33,929	12	Underground (completely buried)	Steel/Carbon Steel	Gasoline	Loading Pump
$46^{\dagger}$	Pipelines	2	2.0	735	NR	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle, Portable Tank <sup>a</sup>	Steel/Carbon Steel	Diesel, Waste Oils <sup>a</sup>	Flexible Hose Line, Other
491	Electric Utility Plants	289	8.8	473,579	23	Prefabricated Aboveground, on Ground/Pad	Steel/Carbon Steel	Lubricating Oil	Loading Pump
5171	Petroleum Bulk Stations and Terminals	1,455	10.4	163,290	20	Prefabricated Aboveground, on Ground/Pad	Steel/Carbon Steel	Gasoline	Loading Pump
554	Gasoline Service Stations	693	6.5	112,868	18	Underground (completely buried)	Steel/Carbon Steel	Gasoline	Loading Pump
5983	Fuel Oil Dealers	261	5.9	19,336	24	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Nos. 1, 2, or 4 Fuel Oil	Loading Pump
751	Vehicle Rental	5	2.5	2,910	3	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Diesel	Other

TABLE A
TANK CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	TOTAL NUMBER OF TANKS	AVERAGE NUMBER OF TANKS PER FACILITY	AVERAGE CAPACITY (GALLONS)	AVERAGE AGE OF TANKS (YEARS)	MOST COMMON TANK TYPE	MOST COMMON TANK MATERIAL	MOST COMMON PRODUCT STORED	MOST COMMON TRANSFER MECHANISM
806	Hospitals	42	7.0	10,879	11	Underground (completely buried)	Steel/Carbon Steel	Nos. 1, 2, or 4 Fuel Oil	Loading Pump
821	Education	423	4.0	4,226	13	Underground (completely buried)	Steel/Carbon Steel	Nos. 1, 2, or 4 Fuel Oil	Loading Pump
822	Colleges	284	28.4	7,821	13	Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle	Steel/Carbon Steel	Nos. 1, 2, or 4 Fuel Oil	Flexible Hose Line
97	Military Installations	1,173	48.9	23,921	13	Underground (completely buried)	Steel/Carbon Steel	Nos. 1, 2, or 4 Fuel Oil	Loading Pump

<sup>&</sup>lt;sup>a</sup> Indicates a multiple response (i.e., the combination of items) occurred with the most frequency.

Indicates different responses occurred with the same frequency.

<sup>†</sup> Information reflects only one pipeline facility that responded to the survey.

TABLE B
TANK SPILL PREVENTION CHARACTERISTICS

SIC CODE	INDUSTRY	TANKS WITH INTERNAL PROTECTION (%)	TANKS WITH EXTERNAL PROTECTION (%)	TANKS WITH LEAK DETECTION (%)	MOST COMMON METHOD OF TANK LEAK DETECTION	TANKS WITH EXTERNAL LINERS (%)	MOST COMMON EXTERNAL LINERS FOR TANKS	TANKS WITH OVERFILL PROTECTION (%)	MOST COMMON METHOD OF OVERFILL PROTECTION	TANKS WITH SECONDARY CONTAINMENT (%)	MOST COMMON SECONDARY CONTAINMENT TYPE
01/02	Farms	8.2	84.2	21.8	Other	7.7	Impervious Soil Liner	35.6	Automatic Shut-Off	13.1	Earthen Dike
12/14	Coal Mining/Nonmetallic Mineral Mining	4.3	83.3	23.1	Other	39.7	Concrete Liner	65.4	Catch Basin	52.6	Concrete Dike
131	Oil Production	14.6	77.0	31.2	Other	15.9	Impervious Soil Liner	71.2	Catch Basin	86.4	Earthen Dike
16	Contract Construction	5.6	91.6	57.9	Other	43.2	Concrete Liner	63.2	Product Level Gauge	78.9	Concrete Dike
20	Food and Kindred Products	4.1	81.0	45.8	Other	43.6	Other	85.9	Catch Basin	80.8	Concrete Dike
28	Chemical and Allied Products	6.2	80.1	41.7	Other	39.5	Impervious Soil Liner	83.8	Product Level Gauge	86.3	Concrete Dike
29	Petroleum Refining and Related Industries	8.7	93.5	15.6	Other	20.8	Impervious Soil Liner	94.0	Vent Whistle	81.8	Concrete Dike
33	Primary Metal Industries	1.1	78.4	64.9	Other	15.8	Concrete Liner	67.1	Catch Basin	56.8	Concrete Dike
20-39	Other Manufacturing	4.8	86.8	41.3	Other	17.8	Concrete Liner	73.9	Product Level Gauge	67.0	Concrete Dike
401	Railroad Fueling	15.7	92.0	33.0	Other	23.0	Other	44.0	Product Level Gauge	69.0	Concrete Dike
411/413/ 414/417	Bus Transportation	NR	NR	0.0	None	0.0	None	50.0	Float Vent Valve	0.0	None
42/449	Trucking and Warehouse/Water Transportation Services	8.9	76.7	54.7	Other	41.9	Impervious Soil Liner	69.6	Automatic Shut-Off, Vent Whistle <sup>a</sup>	67.2	Concrete Dike
458	Air Transportation	40.6	77.9	52.6	Interstitial Monitoring	20.2	Impervious Soil Liner	65.6	Other	40.7	Concrete Dike
$46^{\dagger}$	Pipelines	0.0	0.0	0.0	None	0.0	None	0.0	None	0.0	None
491	Electric Utility Plants	6.2	95.2	25.3	Other	19.0	Concrete Liner	69.2	Product Level Gauge	74.0	Concrete Dike
5171	Petroleum Bulk Stations and Terminals	11.6	80.5	49.6	Other	26.5	Impervious Soil Liner	78.8	Catch Basin	77.8	Earthen Dike

TABLE B TANK SPILL PREVENTION CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	TANKS WITH INTERNAL PROTECTION (%)	TANKS WITH EXTERNAL PROTECTION (%)	TANKS WITH LEAK DETECTION (%)	MOST COMMON METHOD OF TANK LEAK DETECTION	TANKS WITH EXTERNAL LINERS (%)	MOST COMMON EXTERNAL LINERS FOR TANKS	TANKS WITH OVERFILL PROTECTION (%)	MOST COMMON METHOD OF OVERFILL PROTECTION	TANKS WITH SECONDARY CONTAINMENT (%)	MOST COMMON SECONDARY CONTAINMENT TYPE
554	Gasoline Service Stations	16.8	85.3	67.8	Other	16.9	Impervious Soil Liner	78.4	Catch Basin	48.9	Earthen Dike
5983	Fuel Oil Dealers	17.8	77.0	56.7	Other	29.5	Impervious Soil Liner	71.3	Product Level Gauge	75.1	Earthen Dike
751	Vehicle Rental	20.0	80.0	0.0	None	0.0	None	100.0	Product Level Gauge	100.0	Concrete Dike
806	Hospitals	25.0	92.9	73.8	Other	35.7	Other	97.6	Product Level Gauge	52.4	Double-Walled Tank
821	Education	22.4	74.5	32.6	Other	19.1	Concrete Liner	54.6	Catch Basin	39.5	Concrete Dike
822	Colleges	5.0	89.4	15.8	Interstitial Monitoring	15.5	Double-Bottom	43.0	Vent Whistle	43.7	Concrete Dike
97	Military Installations	11.8	55.8	31.5	Interstitial Monitoring	15.3	Concrete Liner	47.8	Catch Basin	45.4	Concrete Dike

Indicates a multiple response (i.e., the combination of items) occurred with the most frequency.
 Information reflects only one pipeline facility that responded to the survey.

TABLE C
PIPING CHARACTERISTICS

SIC CODE	INDUSTRY	LOCATION OF PIPING	TYPE OF PIPING	PIPING WITH INTERNAL PROTECTION (%)	PIPING WITH EXTERNAL PROTECTION (%)	PIPING WITH LEAK DETECTION (%)
01/02	Farms	None	None	2.0	34.8	23.1
12/14	Coal Mining/Nonmetallic Mineral Mining	None	None	8.6	64.1	29.5
131	Oil Production	Aboveground/Underground Combination	Steel/Iron	3.9	48.4	30.0
16	Contract Construction	Aboveground	Steel/Iron	0.0	57.4	54.7
20	Food and Kindred Products	Aboveground	Steel/Iron	0.9	60.1	49.3
28	Chemical and Allied Products	Aboveground	Steel/Iron	1.3	19.4	37.5
29	Petroleum Refining and Related Industries	Aboveground/Underground Combination	Steel/Iron	1.0	65.0	16.7
33	Primary Metal Industries	Aboveground	Steel/Iron	0.0	52.7	46.4
20-39	Other Manufacturing	Aboveground	None	3.3	57.5	31.0
401	Railroad Fueling	Aboveground	Steel/Iron	1.1	65.0	5.0
411/413/ 414/417	Bus Transportation	None, Aboveground	None, Copper <sup>a</sup>	0.0	100.0	0.0
42/449	Trucking and Warehouse/Water Transportation Services	Aboveground	Steel/Iron	3.1	63.2	48.4
458	Air Transportation	Aboveground/Underground Combination	Steel/Iron	20.6	73.1	49.0
$46^{\dagger}$	Pipelines	None	None	0.0	0.0	0.0
491	Electric Utility Plants	Aboveground	Steel/Iron	1.5	52.6	18.0
5171	Petroleum Bulk Stations and Terminals	Aboveground	Steel/Iron	9.4	64.7	43.3
554	Gasoline Service Stations	Underground	Steel/Iron	7.3	69.4	56.4

TABLE C PIPING CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	LOCATION OF PIPING	TYPE OF PIPING	PIPING WITH INTERNAL PROTECTION (%)	PIPING WITH EXTERNAL PROTECTION (%)	PIPING WITH LEAK DETECTION (%)
5983	Fuel Oil Dealers	Aboveground	Steel/Iron	1.6	65.9	33.0
751	Vehicle Rental	None, Aboveground/Underground Combination	None, Galvanized Steel	0.0	100.0	40.0
806	Hospitals	Underground	Steel/Iron	29.7	100.0	66.7
821	Education	Underground	Copper	8.2	96.2	24.4
822	Colleges	Aboveground	Copper	1.4	100.0	6.7
97	Military Installations	Underground	Steel/Iron	5.7	82.4	14.9

Indicates a multiple response (i.e., the combination of items) occurred with the most frequency.
 Information reflects only one pipeline facility that responded to the survey.

TABLE D
ANNUAL SPILL CHARACTERISTICS

SIC CODE	INDUSTRY	TOTAL NUMBER OF DISCHARGES	LARGEST SPILL QUANTITY	MOST COMMON SOURCE OF SPILL	MOST COMMON SPILL CAUSE	MOST COMMON MATERIAL DISCHARGED	AVERAGE QUANTITY DISCHARGED (GALLONS)	AVERAGE QUANTITY DISCHARGED BEYOND SECONDARY CONTAINMEN T (GALLONS)	MOST COMMON MEDIA AFFECTED
01/02	Farms	50	20,000	Other	Operator Error	Diesel	1,085	7	Land/Soil
12/14	Coal Mining/Nonmetallic Mineral Mining	3	9,000	Tank Roof	Operator Error	Asphalt	2,125	2,080	Surface Water-Coastal Waters
131	Oil Production	67	37,800	Other Equipment	Other	Crude Oil	2,020	1,195	Land/Soil
16	Contract Construction	3	50	Loading Arm to Tank Truck	Operator Error	Asphalt	25	0	Land/Soil
20	Food and Kindred Products	21	5,700	Valve	Valve Failure	Other	949	870	Contained On-Site
28	Chemical and Allied Products	28	420	Other	Other Mechanical Failure	Other	56	23	Contained On-Site
29	Petroleum Refining and Related Industries	118	504,000	Other	Operator Error	Crude Oil	7,503	542	Wetland
33	Primary Metal Industries	8	250	Other	Collision With Mobile Equipment	Other	82	21	Contained On-Site
20-39	Other Manufacturing	30	1,800	Other	Operator Error	Other	182	12	Contained On-Site
401	Railroad Fueling	4	100	Other Equipment	General Structural Failure, Other Mechanical Failure, Other	Lubricating Oil	30	5	Surface Water-Inland Waters
411/413/ 414/417	Bus Transportation	NA	NA	NA	NA	NA	NA	NA	NA
42/449	Trucking and Warehouse/Water Transportation Services	17	12,800	Other	Operator Error	Diesel	1,796	879	Contained On-Site
458	Air Transportation	9	250	Tank Piping	Tank Overfill/Overflow	Kerosene	78	32	Land/Soil
46	Pipelines	NA	NA	NA	NA	NA	NA	NA	NA

TABLE D
ANNUAL SPILL CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	TOTAL NUMBER OF DISCHARGES	LARGEST SPILL QUANTITY	MOST COMMON SOURCE OF SPILL	MOST COMMON SPILL CAUSE	MOST COMMON MATERIAL DISCHARGED	AVERAGE QUANTITY DISCHARGED (GALLONS)	AVERAGE QUANTITY DISCHARGED BEYOND SECONDARY CONTAINMEN T (GALLONS)	MOST COMMON MEDIA AFFECTED
491	Electric Utility Plants	47	1,000	Other Equipment	Other Mechanical Failure	Non-Petroleum Oils	76	5	Contained On-Site
5171	Petroleum Bulk Stations and Terminals	43	6,300	Tank Truck Loading Rack	Operator Error	Nos. 1, 2, or 4 Fuel Oil	501	234	Land/Soil
554	Gasoline Service Stations	12	500	Other Equipment	Other	Gasoline	215	134	Wetland
5983	Fuel Oil Dealers	13	700	Loading Arm to Tank Truck	Operator Error	Nos. 1, 2, or 4 Fuel Oil	200	92	Contained On-Site
751	Vehicle Rental	NA	NA	NA	NA	NA	NA	NA	NA
806	Hospitals	NA	NA	NA	NA	NA	NA	NA	NA

TABLE D
ANNUAL SPILL CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	TOTAL NUMBER OF DISCHARGES	LARGEST SPILL QUANTITY	MOST COMMON SOURCE OF SPILL	MOST COMMON SPILL CAUSE	MOST COMMON MATERIAL DISCHARGED	AVERAGE QUANTITY DISCHARGED (GALLONS)	AVERAGE QUANTITY DISCHARGED BEYOND SECONDARY CONTAINMEN T (GALLONS)	MOST COMMON MEDIA AFFECTED
821	Education	3	110	Valve, Pump, Other	Operator Error	Nos. 1, 2, or 4 Fuel Oil, Diesel, Waste Oils <sup>a</sup>	39	38	Contained On-Site
822	Colleges	7	2,000	Other	Tank Overfill/Overflow	Diesel	521	521	Land/Soil
97	Military Installations	225	36,000	Other Equipment	Other Mechanical Failure	Other	393	337	Contained On-Site

NA Indicates no responses were reported in the industry sector.

<sup>&</sup>lt;sup>a</sup> Indicates a multiple response (i.e. the combination of items) occurred with the most frequency.

b Indicates different responses occurred with the same frequency.

<sup>&</sup>lt;sup>†</sup> Information reflects only one pipeline facility that responded to the survey.

TABLE E
SPILL RESPONSE CHARACTERISTICS

SIC CODE	INDUSTRY	SPILLS RECOVERED <sup>a</sup> (%)	MOST COMMON METHOD OF SHORT-TERM CLEANUP	MOST COMMON METHOD OF LONG-TERM CLEANUP	MOST COMMON RESPONDER	MOST COMMON SHORT-TERM CLEANUP COSTS	MOST COMMON LONG-TERM CLEANUP COSTS
01/02	Farms	26.1	None	None	None	NR	NR
12/14	Coal Mining/Nonmetallic Mineral Mining	66.7	None	None	Facility Personnel	\$1,001-\$10,000	NR
131	Oil Production	64.0	Vacuum Trucks	None	Spill Cooperative	\$1-\$1,000	None
16	Contract Construction	100.0	Sorbent Pads, Other	None	Facility Personnel	\$1,001-\$10,000	None
20	Food and Kindred Products	81.4	Vacuum Trucks, Other	None	Facility Personnel	\$1-\$1,000	None
28	Chemical and Allied Products	57.8	Sorbent Pads	None	Facility Personnel	\$1-\$1,000	None
29	Petroleum Refining and Related Industries	81.2	Sorbent Pads	None	Spill Cooperative	\$1-\$1,000	None
33	Primary Metal Industries	80.0	Sorbent Pads	None	Facility Personnel	\$1-\$1,000	None
20-39	Other Manufacturing	77.3	Sorbent Pads	None	Facility Personnel	\$1-\$1,000	None
401	Railroad Fueling	33.3	None	None	Facility Personnel	NR	None
411/413/ 414/417	Bus Transportation	NA	NA	NA	NA	NA	NA
42/449	Trucking and Warehouse/Water Transportation Services	65.4	Other	None	Facility Personnel	\$1-\$1,000	None
458	Air Transportation	63.9	Sorbent Pads	None	Contractor	\$1,001-\$10,000	None
$46^{\dagger}$	Pipelines	NA	NA	NA	NA	NA	NA
491	Electric Utility Plants	81.3	Sorbent Pads	None	Facility Personnel	\$1-\$1,000	None
5171	Petroleum Bulk Stations and Terminals	53.1	Sorbent Pads	None	Facility Personnel	\$1-\$1,000	None

TABLE E SPILL RESPONSE CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	SPILLS RECOVERED* (%)	MOST COMMON METHOD OF SHORT-TERM CLEANUP	MOST COMMON METHOD OF LONG-TERM CLEANUP	MOST COMMON RESPONDER	MOST COMMON SHORT-TERM CLEANUP COSTS	MOST COMMON LONG-TERM CLEANUP COSTS
554	Gasoline Service Stations	90.8	Sorbent Pads	None	Facility Personnel	\$1,001-\$10,000	None
5983	Fuel Oil Dealers	69.7	De-emulsifiers	None	Facility Personnel	\$1-\$1,000	NR
751	Vehicle Rental	NA	NA	NA	NA	NA	NA
806	Hospitals	NA	NA	NA	NA	NA	NA
821	Education	95.5	Sorbent Pads, Dispersants	None	Facility Personnel	\$1-\$1,000	NR
822	Colleges	83.3	Excavation & Off-Site Disposal	Bioremediation	Spill Cooperative	\$1-\$1,000	None
97	Military Installations	93.0	Sorbent Pads, Others <sup>b</sup>	None	Facility Personnel	\$1-\$1,000	None

**NA** No responses were reported in the industry sector.

Averages were determined by calculating the mean recovery rate for all facilities within each SIC code. Indicates a multiple response (i.e., the combination of items) occurred with the most frequency.

Information reflects only one pipeline facility that responded to the survey.

TABLE F
FACILITY OIL STORAGE AND TRANSPORT CHARACTERISTICS

SIC CODE	INDUSTRY	AVERAGE ABOVEGROUND OIL STORAGE QUANTITY (GALLONS)	AVERAGE UNDERGROUND OIL STORAGE QUANTITY (GALLONS)	AVERAGE NUMBER OF USTS REPLACED WITH ASTS	MOST COMMON METHOD OF TRANSPORT TO AND FROM FACILITIES	AVERAGE NUMBER OF TRANSFERS TO FACILITIES PER YEAR	AVERAGE NUMBER OF TRANSFERS FROM FACILITIES PER YEAR	AVERAGE QUANTITY DELIVERED TO/ SHIPPED TO/ PRODUCED AT FACILITY (GALLONS)	FACILITIES CONSUMING OIL (%)	AVERAGE PERCENT OF OIL CONSUMED AT FACILITY*	FACILITIES WITH OIL LEAVING AS PRODUCT (%)	AVERAGE PERCENT OF OIL LEAVING AS PRODUCTS <sup>b</sup>
01/02	Farms	3,876	2,212	1.0	Tank Truck	13	52	30,284	84.1	97.5	5.5	83.7
12/14	Coal Mining/Nonmetallic Mineral Mining	11,244	39,500	NR	Other	58	60	114,791	94.4	100.0	5.6	30.0
131	Oil Production	48,943	3,750	NR	Tank Truck	2	30	399,508	2.3	54.3	57.2	99.9
16	Contract Construction	65,042	60,800	1.0	Tank Truck	204	637	1,543,171	82.8	84.8	36.7	91.9
20	Food and Kindred Products	516,068	28,201	0.0	Other	283	542	10,325,450	72.3	87.6	58.5	89.2
28	Chemical and Allied Products	1,027,059	23,820	0.5	Other	99	96	12,263,526	68.9	87.9	51.1	91.5
29	Petroleum Refining and Related Industries	57,001,221	61,375	0.0	Pipeline	516	3,486	421,830,946	42.2	87.8	91.1	97.1
33	Primary Metal Industries	143,117	65,750	3.0	Other	90	81	252,748	85.7	70.2	28.6	94.8
20-39	Other Manufacturing	102,074	29,496	1.4	Other	93	134	13,767	80.8	90.5	11.3	73.8
401	Railroad Fueling	276,852	22,429	1.3	Other	700	298	6,279,767	100.0	99.5	28.6	77.3
411/413/ 414/417	Bus Transportation	800	NR	NR	Other Truck	4	0	1,800	0.0	NR	0.0	NR
42/449	Trucking and Warehouse/Water Transportation Services	686,048	35,813	1.0	Tank Truck	79	875	3,476,908	58.8	91.3	23.8	94.0
458	Air Transportation	187,349	82,926	3.3	Tank Truck	299	1,066	10,313,768	83.8	85.9	45.9	94.2
$46^{\dagger}$	Pipelines	1,500	NR	NR	Tank Truck, Other Truck, Other <sup>c</sup>	2	3	10,000	NR	NR	0.0	NR
491	Electric Utility Plants	4,008,734	40,934	NR	Other	45	20	10,627,573	93.3	97.5	3.2	50.0
5171	Petroleum Bulk Stations and Terminals	1,619,776	39,348	0.0	Tank Truck	255	1,956	22,032,986	26.4	59.7	95.8	98.3
554	Gasoline Service Stations	703,704	78,791	0.2	Tank Truck	3,152	24,661	17,714,605	19.3	49.1	81.0	98.3
5983	Fuel Oil Dealers	1,460,780	49,967	NR	Tank Truck	247	1,259	2,573,865	39.5	35.2	94.7	99.3
751	Vehicle Rental	7,275	NR	NR	NR	25	1,304	61,771	100.0	94.5	50.0	11.0
806	Hospitals	12,279	65,825	1.7	Tank Truck	39	8	53,136	100.0	100.0	0.0	NR
821	Education	4,253	23,304	1.0	Tank Truck	22	142	49,821	76.5	97.2	2.9	75.0
822	Colleges	141,733	89,704	2.3	Tank Truck	238	1	827,253	100.0	100.0	0.0	NR

## TABLE F FACILITY OIL STORAGE AND TRANSPORT CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	AVERAGE ABOVEGROUND OIL STORAGE QUANTITY (GALLONS)	AVERAGE UNDERGROUND OIL STORAGE QUANTITY (GALLONS)	AVERAGE NUMBER OF UST's REPLACED WITH AST's	MOST COMMON METHOD OF TRANSPORT TO AND FROM FACILITIES	AVERAGE NUMBER OF TRANSFERS TO FACILITIES PER YEAR	AVERAGE NUMBER OF TRANSFERS FROM FACILITIES PER YEAR	AVERAGE QUANTITY DELIVERED TO/ SHIPPED TO/ PRODUCED AT FACILITY (GALLONS)	FACILITIES CONSUMING OIL (%)	AVERAGE PERCENT OF OIL CONSUMED AT FACILITY <sup>a</sup>	FACILITIES WITH OIL LEAVING AS PRODUCT (%)	AVERAGE PERCENT OF OIL LEAVING AS PRODUCTS <sup>b</sup>
97	Military Installations	736,084	454,986	1.0	Tank Truck	695	14,783	8,027,693	95.2	87.3	23.8	93.3

Indicates no responses were provided for this data element.

The average percentage presented in this column is based only on responses from facilities that indicated they consume oil.

The average percentage presented in this column is based only on responses from facilities that indicated that oil leaves the facility as a product.

Indicates a multiple response (i.e., the combination of items) occurred with the most frequency.

Information reflects only one pipeline facility that responded to the survey.

TABLE G
OTHER FACILITY CHARACTERISTICS

SIC CODE	INDUSTRY	FACILITIES AWARE OF SPCC (%)	FACILITIES WITH PREVENTION PLANS (%) <sup>a</sup>	FACILITIES WITH RESPONSE PLANS (%)	FACILITIES WITHIN A HALF MILE OF NAVIGABLE WATERS (%)	FACILITIES WITHIN A HALF MILE OF A SENSITIVE ENVIRONMENT (%)	FACILITIES WITH SUBSURFACE MONITORING (%)	FACILITIES WITH FORMAL LEAK DETECTION PROGRAMS (%)	MOST COMMON FORM OF LEAK DETECTION <sup>b</sup>	MOST COMMON RESPONSE MECHANISMS <sup>b</sup>	AVERAGE ACQUISITION COST OF RESPONSE MECHANISMS (\$)	AVERAGE MAINTENANCE COST OF RESPONSE MECHANISMS (\$)
01/02	Farms	19.0	2.6	25.1	3.8	5.2	0.9	14.4	Visual External Inspections	Facility Equipment and Personnel	10,119	4,183
12/14	Coal Mining/Nonmetallic Mineral Mining	55.6	66.7	77.8	38.9	33.3	11.1	55.6	Visual External Inspections	Facility Equipment and Personnel, Response Contractor (on retainer)	8,301	1,020
131	Oil Production	88.7	57.9	96.3	31.3	5.7	1.9	84.5	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel, Response Contractor (on retainer)	8,809	4,266
16	Contract Construction	52.9	29.4	76.5	26.5	46.9	8.8	68.8	Visual External Inspections	Facility Equipment and Personnel	22,252	5,625
20	Food and Kindred Products	54.4	46.7	81.2	21.5	17.9	13.0	53.3	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel	27,727	1,431,946
28	Chemical and Allied Products	82.0	81.5	96.1	33.3	11.4	27.5	76.9	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel, Response Contractor (on retainer)	18,221	8,854
29	Petroleum Refining and Related Industries	93.6	86.2	95.7	42.2	11.9	25.5	93.1	Other	Facility Equipment and Personnel, Response Contractor (on retainer), Response Contractor (per incident), Mutual Assistance Agreement	201,578	155,103
33	Primary Metal Industries	78.6	80.0	100.0	28.6	0.0	14.3	80.0	Visual External Inspections	Facility Equipment and Personnel, Response Contractor (on retainer)	16,488	7,677
20-39	Other Manufacturing	65.5	5.7	84.2	23.9	14.5	15.0	71.4	Visual External Inspections	Facility Equipment and Personnel	15,593	2,605
401	Railroad Fueling	87.5	83.3	93.8	56.3	15.4	18.8	100.0	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel, Response Contractor (on retainer)	5,779	3,368
411/413/ 414/417	Bus Transportation	0.0	0.0	100.0	0.0	NR	0.0	0.0	NR	Response Contractor (per incident)	NR	NR
42/449	Trucking and Warehouse/Water Transportation Services	51.4	40.4	77.3	16.8	43.0	20.2	50.0	Visual External Inspections	Facility Equipment and Personnel, Response Contractor (on retainer)	16,039	7,214
458	Air Transportation	59.0	57.1	79.5	13.5	35.3	23.1	71.4	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel	23,562	4,360
$46^{\dagger}$	Pipelines	100.0	NR	100.0	100.0	100.0	0.0	NR	NR	Facility Equipment and Personnel	296	96

TABLE G
FACILITY CHARACTERISTICS (CONTINUED)

SIC CODE	INDUSTRY	FACILITIES AWARE OF SPCC (%)	FACILITIES WITH PREVENTION PLANS (%) <sup>a</sup>	FACILITIES WITH RESPONSE PLANS (%)	FACILITIES WITHIN A HALF MILE OF NAVIGABLE WATERS (%)	FACILITIES WITHIN A HALF MILE OF A SENSITIVE ENVIRONMENT (%)	FACILITIES WITH SUBSURFACE MONITORING (%)	FACILITIES WITH FORMAL LEAK DETECTION PROGRAMS (%)	MOST COMMON FORM OF LEAK DETECTION <sup>b</sup>	MOST COMMON RESPONSE MECHANISMS <sup>b</sup>	AVERAGE ACQUISITION COST OF RESPONSE MECHANISMS (\$)	AVERAGE MAINTENANCE COST OF RESPONSE MECHANISMS (\$)
491	Electric Utility Plants	91.4	91.3	94.3	67.6	27.6	20.0	91.3	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel, Response Contractor (on retainer)	86,620	6,777
5171	Petroleum Bulk Stations and Terminals	79.9	81.5	94.2	22.1	14.8	28.4	80.5	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel	16,871	9,235
554	Gasoline Service Stations	59.8	54.1	80.7	23.1	4.7	50.5	87.9	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel, Response Contractor (on retainer)	6,233	9,777
5983	Fuel Oil Dealers	81.8	80.8	100.0	38.6	14.7	19.0	88.5	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel, Response Contractor (on retainer)	3,817	742
751	Vehicle Rental	0.0	100.0	100.0	0.0	0.0	0.0	100.0	Visual External Inspections, Inventory Monitoring	Facility Equipment, Response Contractor (per incident)	296	96
806	Hospitals	57.1	0.0	100.0	14.3	20.0	14.3	50.0	Visual External Inspections	Facility Equipment and Personnel	13,071	15
821	Education	32.1	8.6	61.6	14.7	6.0	15.2	38.0	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel	5,012	1,313
822	Colleges	70.0	0.0	100.0	30.0	12.5	30.0	100.0	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel	10,189	8,247
97	Military Installations	91.7	100.0	100.0	56.5	36.8	50.0	100.0	Visual External Inspections, Inventory Monitoring	Facility Equipment and Personnel	508,349	203,023

a This question was voluntary and may not reflect all responding facilities.

b Multiple responses indicate that the combination of items occurred with the most frequency.

information reflects only one pipeline facility responded to the survey.